

Meeting Summary:

Technical Advisory Group:

WQIF Cost Control Measures – Policies and Guidelines Development

May 30, 2007, 10 AM – 2:30 PM, DEQ Central Office

1. Members present:

Name	Representing
1. Alan Pollock	DEQ-OWQP, TAG Chairman
2. Frank Harksen	VAMWA
3. Mark Haley	VA NCEA
4. Tim Castillo	Nelson Co. PSA (non-sig. dischargers)
5. Mike Gerel	Chesapeake Bay Foundation
6. Denise Thompson	VA Municipal League
7. Nathan Lott	VA Conservation Network
8. Walter Gills	DEQ-CAP
State Resource Staff	
9. John Kennedy	DEQ-CBP, Staff Lead
10. Bob Ehrhart	DEQ-CBP
11. Marcia Degen	DEQ-OWE
12. Vijay Satyal	DEQ-Office of Policy

Invited members not attending:

Larry Land – VA Association of Counties

Bill Street – James River Association

Others in attendance:

Chuck Weber – Prince Wm. Co. Service Authority

Shane Reid - Reid Engineering

Bruce Husselbee – Hampton Roads Sanitation District

2. TAG members were provided with copies of the draft agenda, an overview of the statutory language requiring development of cost control policies and guidelines, a white paper with items for the cost control measures discussion, a copy of the status (i.e., readiness to proceed) of Water Quality Improvement Fund (WQIF) grant applications on file, and DEQ's GM #06-2012.
3. The first item addressed was a review of the existing WQIF grant applications totaling about \$631 million. It was mentioned that the executed agreements (less Arlington) total about 80% of what was requested by the applicants. One member asked what was the main item contributing to the reduced grant amounts and staff responded that it was a combination of correctly calculating the authorized grant percentage and eligibility determinations for treatment units comprising the nutrient reduction technology (NRT). Regarding individual unit processes associated with NRT, eligibility determinations for ammonia control costs and clarifier costs appear to be the main reasons for the reduced cost share.
4. Next, the TAG did a general review of the statutory language and the general question: "Why are we here" – to ensure efficient use of grant funds appropriated to the WQIF.
5. Summary of the discussion of specific items in [Guidance Memorandum #06-2012](#) :
 - a. Determining the grant percentage (Item 2 of the GM).

- i. Affordability: ratio of actual to reasonable sewer costs; factors dependent on the locality's median household income (MHI) and percentage devoted to sewer charges.
 - ii. Use of weighted averages for sewer costs and MHI where multiple jurisdictions are served by the facility.
 - iii. Director may consider a request for cost share greater than 75%; described the factors used in this analysis.
 - b. Eligibility of unit processes (Item 4 of GM).
 - c. Methods/information to aid in controlling costs (Item #6 of GM) – One TAG member asked for clarification regarding ammonia control and funding. Staff replied that if the VPDES permit already requires “full nitrification” to meet a stringent ammonia limit (nitrification being the precursor to total-N removal), then year-round nitrification would be installed regardless of the NRT requirements and thus ineligible.
 - d. Appendix A (Grant Eligible Percentages by Unit Process) of the GM was referenced.
 - e. Appendix B (Determination of Reasonable and Necessary Flow Expansion) of the GM was referenced.
 - i. One TAG Member asked what information we are using to document population trends; staff replied that existing building permits, approved subdivisions, and VEC population projects are all used to support a trend for a “reasonable and necessary flow” expansion.
 - ii. One TAG member asked that the agency be cognizant of unprecedented growth (i.e., BRAC, correction facility expansion, etc.).
6. Next there was a discussion of additional potential cost control measures.
- a. Does SB 771/HB 1710 allow DEQ to require the least-cost alternative (based on life cycle cost analysis) be the selected option, unless otherwise justified by the owner?
 - b. DEQ premise: Not to dictate the treatment means or methods; but to ensure the most cost-effective method is selected. It was mentioned that the WQIF (cost share for capital expenses) and sewer fees (for long-term operation and maintenance) are both forms of “public funds”, and the emphasis on lowering the State’s exposure under grant awards may not serve the purpose of getting cost effective projects that maximize environmental benefits.
 - c. Regarding the evaluation of eligible and appropriate costs, one TAG member indicated more expensive NRT reduces the future exposure (i.e., less risk for noncompliance) and forethought allows for more process control automation and less staff needs/costs in the future.
 - d. One TAG member asked if WQIF would cost share more expensive technology than is needed; staff responded yes, but with appropriate performance expectations (based on the technology installed) in the grant agreement. It was recognized that in order for cost-effective trading to occur under the nutrient credit exchange program, some plants will have to go beyond their required treatment levels for credits to be available over the long-term.
 - e. Regarding the applicability of the VA Public Procurement Act, the following items were discussed:
 - i. Can/should the State pre-purchase equipment/units (i.e. receive a volume discount)?
 - ii. Should the State act as a “clearinghouse” for similar projects, which may allow localities to pool an order and reduce costs?
 - iii. How would this be viewed by contractor associations and equipment suppliers?
 - iv. VML uses an entity “Gov Deals”, which may be of benefit.
 - v. Private financing options may allow for the pre-purchase of equipment (pooled order) and lower costs.
 - f. Regarding Design-Build:

- i. Chuck Weber/Prince Wm. Co. Service Authority gave a presentation of the PWCSA-Mooney project which is utilizing the process of "Design-Build" (reduce delivery time and capital cost by overlapping the design and construction phases of a project; the design engineer and construction contractor work together as a team with owner and their consultant before project is even bid).
 - ii. Shane Reid/Reid Engr. echoed the perspective that this is a cost-effective approach and suggested including HRSD-King William STP project as another example.
- g. Regarding Value Engineering (VE; analyze a project design with the intent to reduce cost without reducing product or process performance):
 - i. Bruce Husselbee/HRSD suggested that it's been HRSD's experience the project capital cost savings are about 17:1 per VE dollars spent (i.e., a \$100,000 VE analysis could yield \$1.7 million in construction savings).
 - ii. The consensus was that VE should be performed at the end of the PER stage but before final engineering design, and perhaps VE should be required for projects with a capital cost estimate over \$10 million (or some other appropriate threshold).
- h. Regarding "Other" measures:
 - i. It was suggested that alternate layouts ("outside the box" thinking) be considered in design such as pre-stressed concrete, above (versus below) ground tanks, and common wall structures.
 - ii. It was also suggested that WQIF funds be used for offsite/industrial source reduction, if it would lessen the costs of the NRT system needed at the treatment facility. This might be generally viewed as an existing requirement of a properly operating pretreatment program.
- i. Regarding nutrient credit trading, the following concepts were discussed:
 - i. How can the Compliance Plan(s), due August 2007 under the Watershed General Permit (WSGP) Regulation, and the WQIF be better integrated? Response: the NCEA can't dictate; it can only provide an informed decision on sequencing and treatment levels for projects based on information supplied by the participating owners.
 - ii. This coordination/pairing of the programs should be used to justify which projects proceed or not.
 - iii. Should a WQIF grant application be deferred or declared ineligible if the locality has also indicated to the NCEA they will be purchasing credits?
 - iv. Many owners don't want to take the risk of offering credits, should the need arise for use at their own facility at the end of a compliance period. Question: Should the grant agreement include a condition that the grantee (who is also a member of the NCEA) must offer Class A credits, generated as the result of a WQIF-funded project, until capacity issues arise?
 - v. One TAG member suggested we should provide incentives to owners obligating Class A credits, and consider use of WQIF funds to cost-share the purchase of credits by owners willing to defer upgrades.
- j. With respect to basing grant amounts on facility optimization using full life cycle costs, a summary of the discussion follows:
 - i. This is already required by the VCWRLF program;
 - ii. This is also required by the SCAT Regulations;
 - iii. Most owners also want to see this;
 - iv. This has been a component of existing grant agreements and utilizing/converting existing structures has been emphasized.
- k. Regarding the ability to prioritize grant agreements based on the "river basin optimization plans" (WSGP Compliance Plan), the following items were discussed:
 - i. One TAG member asked, "Can WQIF money be used to purchase credits"?

- ii. One TAG member asked, "Should grant agreements be prioritized on a common unit value (i.e., \$/pound or \$/million gallons treated) to allow the most "bang for the buck"?"
 - iii. One TAG member asked, "Comparatively, how do plants after 2010 shape-up for purchasing credits versus upgrading"?
 - iv. Should plants not currently discharging be bypassed for grant funding (i.e., given low prioritization) because there is no existing water quality benefit? This type of project would benefit cap maintenance; not existing water quality.
- 7. Discussion of controlling the bidding climate.
 - a. Construction costs have increased as a result of escalating material costs (and limited supplies) and the shortage of skilled trades needed on construction sites.
 - b. The number of companies bonding construction projects has been reduced, due to consolidation.
 - c. One TAG member provided the thought that shared risk by a local government with the contractor may eliminate "fright money" (bid escalation or a premium intended to offset unknown future costs of materials) on a project.
 - i. Establish contract/commodity price index.
 - ii. Should the WQIF agreement allow for escalation costs/factors, with a "not-to-exceed" cap on total project cost? Incentives might be built-in to a construction contract whereby the contractor shares in a percentage of any capital savings at the end of a project.
 - d. It was also suggested that breaking the project into smaller divisions or use of a phased approach with third party construction management may enable more bidders and lessen the total cost.
 - e. It was suggested that upfront/negotiated purchase of equipment by the locality may lessen the total cost due to rising equipment costs or delivery uncertainties.
 - f. Many of these items were recently presented thru the National Association of Clean Water Agencies; the website is <http://www.nacwa.org/> . Some information will be provided subsequently.
- 8. Planning future meetings and schedule - The schedule and activities to develop and finalize these cost control policies and guidelines will be as follows:
 - a. Meet in June and July.
 - b. Have a public comment draft document available in early August.
 - c. Post guidelines (i.e., revise Item 6 in GM #06-2012) by October 1, 2007.
 - d. The next meeting of the TAG was scheduled for June 29, 2007 at the DEQ-Piedmont Regional Office (Innsbrook Center), starting at 10 AM.